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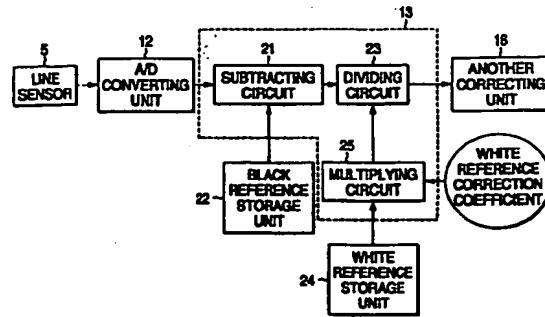
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(54) Shading correction for an image scanner

(57) An image reading apparatus includes: a line sensor 5 for converting light from an original into an electric signal; an A/D converting unit 12 for converting the electric signal derived from the line sensor 5 into a digital signal; a white reference storage unit 24 for storing white reference data set before the original is read; a black reference storage unit 22 for storing black reference data set before the original is read; a light-source light amount detecting unit for detecting a light amount of a light source; and a shading correcting unit 13 for shading-correcting an output signal derived from the A/D converting unit 12 with employment of both white reference data corrected by a white reference correction coefficient and the black reference data. As a consequence, the shading corrections can be performed along both a main scanning direction and a sub-scanning direction. Also, an image reading method includes: a) a step for detecting and setting sub-scanning white reference data when white reference data used in a shading correction is set; b) a step for detecting sub-scanning white reference data in each of reading lines; c) a step for setting as a white reference correction coefficient a ratio of a difference between the sub-scanning white reference data when said white reference data is set and black reference data to another difference between said sub-scanning white reference data in the respective reading lines and said black reference data; and d) a step for reading the original while executing a

shading correction with employment of white reference data corrected by the white reference correction coefficient. In this image reading method, in the case where a plurality of the originals are read, the above-described steps b), c), and d) are repeatedly performed. As a result, since the setting operation for setting again the white reference data can be omitted, the time period required to read the image can be shortened.

FIG. 1





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EUROPEAN SEARCH REPORT

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BERLIN	29 June 1999	Kassow, H	
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